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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,671	07/21/2003	Yao-Tung Chu	17073/004001	5071

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EXAMINER

WAMSLEY, PATRICK G

ART UNIT	PAPER NUMBER
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2819

DATE MAILED: 01/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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**Office Action Summary**

Application No.

10/623,671

Applicant(s)

CHU, YAO-TUNG

Examiner

Patrick G. Wamsley

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 10-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☒ Claim(s) 4-9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Restriction***

Claims 10-16 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 12/02/2004.

### ***Specification***

The disclosure is objected to because of the following informalities:

Page 4, line 23: Change "is able to connected with" to -- is connected to --.

Page 5, line 10: Change "is block diagram" to -- is a block diagram --.

Page 5, line 12: Delete "the means of."

Page 7, line 19: Change "must stores two" to -- must store two --.

Page 8, line 1: Change "points X5 is not " to -- points X5 are not --.

Appropriate correction is required.

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Objections***

Claim 3 is objected to because of the following informalities: a "negative" number of data points cannot be recorded. Instead, as described on Page 8 of the specification, the negative number corresponds to the total amount of temporarily stored data points. Appropriate correction is required.

Claim 4, line 10: Change "segment" to -- segments --.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Admitted Prior Art, hereafter APA, in view of U.S. Patent 3,478,266 to Gardenhire et al, hereafter Gardenhire.

APA, as depicted in Figure 5, discloses a conventional fan compression method. If a present read data point is in a tolerable range, the previous data point is ignored. However, if the present data point exceeds the tolerable range, the previous data point is ignored [Page 2, lines 8-10]. Unlike claim 1, APA's method does not record the total number of examined and ignored data points.

Gardenhire discloses a digital data redundancy reduction method using a fan method [column 2, line 5] with extended steps [column 3, line 15], involving the accumulation of a large number of data points.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have applied Gardenhire's teachings to APA. The motivation would have been to provide further reduction of redundant data, as suggested by Gardenhire.

For claim 2, Gardenhire's threshold for examined data points is less than the threshold for ignored data points. That's because Gardenhire ignores a larger number of data points than the set period for samples, as shown in Figure 1.

For claim 3, Gardenhire designates a present temporary sample, measuring error values relative to a double tolerance threshold [Figure 2]. When non-redundant samples are identified, corresponding to a period of fast transitions in the data stream, Gardenhire performs backward reconstruction, corresponding to the claimed procedure of defining "negative" data points for quick variations in data. Also, Gardenhire uses negative numbers to identify non-redundant samples [col. 8, lines 61-62].

### ***Allowable Subject Matter***

Claims 4-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the references of record neither reveal nor render obvious the recited combination including the use of main and secondary regions having multiple data segments as well as amount values, time values, and position values.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent 3,311,909 to Glover reduces signal redundancy by defining upper and lower tolerance lines ("fans"). U.S. Patent 3,527,885 to Busgang provides adaptive redundancy removal. U.S. Patent 4,232,375 to Paugstat et al shows a data compression system. U.S. Patent 4,906,995 to Swanson discloses a data compression apparatus. U.S. Patent 5,748,955 to Smith describes stream data compression. U.S. Patent 6,816,856 to Baskins et al describes tree data compression.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick G. Wamsley whose telephone number is (571) 272-1814. The official facsimile number is (703) 872-9306.

A handwritten signature in black ink, appearing to read "Patrick G. Wamsley".

*Patrick G. Wamsley*

*January 11, 2005*